

Work Order ID 156232-1

Friday, January 27, 2017 12:49:09 PM

156232

Page 1

Item ID: D350-567-141

Revision ID:

Item Name: Floor Window Close Out

Start Date: 1/17/2017 Start Qty: 2.00

Required Date: 1/27/2017 Req'd Qty: 2.00

Reference:

Accept

N900040100

Setup Start *NS1*

Stop *NS2*

Cust Item ID:

Customer:

Approvals:

Process Plan:

DAS

Date:

JAN 31 2017

Tooling:

Date:

QC:

21

Date:

SPC (Y/N):

Date:

Run Start *NR1*

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

DAS

21

9-89

FEB 09 2017

DSI 9590

F

100

Document Control

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Doc.Control -USB or Paperwork

Photocopy bluefile & type labels per PPP D350-567-141 CHG004

DAS
28
9-89

FEB 15 2017

110

Pick Kit

0.00

110

Packaging

Memo

0.00

Packaging

DAS
6
9-89

FEB 09 2017

DAS
27
9-89

FEB 15 2017

120

QC4- 100% Inspect kits for completeness

0.00

120

QC

Memo

0.01

Quality Control

DAS
28
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

Work Order ID 156232

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156232

Page 2

Item ID: D350-567-141

Accept

N900040100

Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Floor Window Close Out

Start Date: 1/17/2017 Start Qty: 2.00

2

Cust Item ID:

Required Date: 1/27/2017 Req'd Qty: 2.00

2

Customer:

Reference:

Approvals:

Process Plan: _____

Date: _____

Tooling: _____

Date: _____

Run Start

NR1

QC: _____

Date: _____

SPC (Y/N): _____

Date: _____

Stop

NR2Sequence ID/
Work Center IDOperation
DescriptionSet Up/
Run Hours

Tool ID

Tool #

Plan
CodeAccept
QtyReject
QtyReject
NumberInsp.
Stamp

130

130

Packaging

Packaging

0.00

Memo

0.00

Identify and pack for shipping as per PPP D350-567-141
Location:FG033DAS
28
9-89DAS
27
9-89

FEB 15 2017

140

140

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

Memo

0.03

DAS
21
9-89

FEB 15 2017

MF
17-2-15

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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Page 1

156232

D350-567-141

Required Date: 1/27/2017

Required Qty: 2.00

Comments: IPP REV:A 11.11.09 new issue DD verf:JLM IPP REV:B
12.01.23 AS PER ECN12-511 DD VERF:EC IPP REV:C 12.03.05
AS PER ECN12-537 DD VERF:EC IPP REV:D 13.04.01 AS PER
DSI9590 REV.E DD VERF:JLM IPP REV :E AS PER DSI9590 REV F JLM
VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D4434-047		Manufactured	No				Each	2.0000	1	2			
D4434-047									**			FEB 10 2017	DAS 6 9-89 DAS 27 9-89
Cover Assembly													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST619				2					
					152288			2		153129			
D3802-1		Manufactured	No			110	f	22.3158	2	4			
D3802-1									**			FEB 10 2017	DAS 6 9-89 DAS 27 9-89
Window Seal (\$ per foot)													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST416				22.31578947					
					153922			22.3157895		147067			
D4434-041		Manufactured	No			110	Each	0.0000	1	2			
D4434-041									**			FEB 10 2017	DAS 6 9-89 DAS 27 9-89
Fwd Bracket Assembly													
D4435-045		Manufactured	No			110	Each	1.0000	1	2			
D4435-045									**			FEB 10 2017	DAS 6 9-89 DAS 27 9-89
T/R Bellcrank Cover Assembly													
				<u>Location</u>				<u>Loc Qty</u>		<u>Loc Code</u>			
				ST620				1					
					152205			1		153097			

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐	
OTHER : ☐ _____						

Picklist Print

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Page 2

Work Order ID: 156232

156232

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 1/17/2017

Required Date: 1/27/2017

Start Qty: 2.00

Required Qty: 2.00

D4435-9 Manufactured No 110 Each 10.0000 2 4

D4435-9

Bracket

**

Location Loc Qty Loc Code

ST098 10

155788 10

D4436-041 Manufactured No 110 Each 0.0000 1 2

D4436-041

Aft Bracket Assembly

**

D4441-1 Manufactured No 110 f 433.3140 2 4

D4441-1

Rubber Seal

**

Location Loc Qty Loc Code

ST422 183.314

151347 183.314

ST625 250

151347 250

AN3-3A Purchased No 110 Each 195.0000 7 14

AN3-3A

Bolt

**

Location Loc Qty Loc Code

ST350 195

m136199 95

m136643 100

AN525-10R6 Purchased No 110 Each 236.0000 2 4

AN525-10R6

Screw

**

Location Loc Qty Loc Code

ST329 236

M134502 236

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Shop Packet Print

Page 2

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
						QC / QA Coordinator Approval			
Root Cause		FAULT CATEGORY							
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong				
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions				
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance				
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect				
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing				
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved				
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing				
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish				
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread				
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence				
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____							
Misidentified ☐	☐ Past Due								

Picklist Print

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Page 3

Work Order ID: 156232

156232

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 1/17/2017

Required Date: 1/27/2017

Start Qty: 2.00

Required Qty: 2.00

AN525-832R7

Purchased

No

110

Each

97.0000

2

4

AN525-832R7

Screw

**

DAS
6
9-89

DAS
27
9-89

FEB 10 2017

Location

Loc Qty

Loc Code

GA

83

m136147

83

ST328

14

m134070

14

MS21042L06

Purchased

No

110

Each

161.0000

7

14

MS21042L06

Nut

**

DAS
6
9-89

DAS
27
9-89

FEB 10 2017

Location

Loc Qty

Loc Code

ST303

161

m136199

18

m136301

43

m136643

100

MS21042L08

Purchased

No

110

Each

844.0000

2

4

MS21042L08

Nut

**

DAS
6
9-89

DAS
27
9-89

FEB 10 2017

Location

Loc Qty

Loc Code

GA

503

m135274

18

m135978

485

ST303

341

m136301

174

m136537

7

m136643

160

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Shop Packet Print

Page 3

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : _____									

Picklist Print

Friday, January 27, 2017 12:49:08 PM

Page 4

Work Order ID: 156232

156232

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 1/17/2017

Required Date: 1/27/2017

Start Qty: 2.00

Required Qty: 2.00

MS21042L3 Purchased No

110 Each 1,988.000 5 10

MS21042L3

Nut

DAS
28
9-89

Location	Loc Qty	Loc Code
FP001	100	
m135945	100	
GA	158	
m134360	108	
m135135	50	
OVER007	1000	
M136554	500	
M136665	500	
ST303	730	
M136044	11	
M136192	219	
M136406	500	

DAS
6
9-89

FEB 10 2017

DAS
27
9-89

MS21059L3 Purchased No

110 Each 155.0000 2 4

MS21059L3

Nut Plate

DAS
28
9-89

Location	Loc Qty	Loc Code
GA	63	
M136047	63	
ST301	92	
M135774	27	
M136450	65	

DAS
6
9-89

FEB 10 2017

DAS
27
9-89

MS35206-229 Purchased No

110 Each 305.0000 7 14

MS35206-229

Screw

DAS
28
9-89

Location	Loc Qty	Loc Code
ST271	305	
M135603	305	

DAS
6
9-89

FEB 10 2017

DAS
27
9-89

Friday, January 27, 2017 12:49:08 PM

Shop Packet Print

Page 4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By 		
							Lead hand / Supervisor Approval Verification 		
							QC / QA Coordinator Approval 		

Root Cause				FAULT CATEGORY			
☐ Environment	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
☐ Design	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
☐ Doc/Data	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
☐ Equip/Tooling	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
☐ Handling/Pre	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
☐ Material	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
☐ Internal Transport	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
☐ Tribal Knowledge	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
☐ LOA	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
☐ Substation	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
☐ Past Expiry Date	☐ Manufacturing Process	OTHER : 					
☐ Misidentified	☐ Past Due						

Picklist Print

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Work Order ID: 156232

156232

Parent Item: D350-567-141

D350-567-141

Parent Item Name: Floor Window Close Out

Start Date: 1/17/2017

Required Date: 1/27/2017

Start Qty: 2.00

Required Qty: 2.00

NAS1149F0332P

Purchased

No

110

Each

2,044.000

12

24

NAS1149F0332P

Washer

DAS
28
9-89

Location

Loc Qty

Loc Code

GA

343

m133709

343

ST262

1701

m135948

5

m136442

1696

**

DAS
6
9-89

FEB 09 2017

DAS
27
9-89

NAS1149FN616P

Purchased

No

110

Each

102.0000

14

28

NAS1149FN616P

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST264

102

M136199

102

**

DAS
6
9-89

FEB 09 2017

DAS
27
9-89

NAS1149FN816P

Purchased

No

110

Each

394.0000

2

4

NAS1149FN816P

WASHER

DAS
28
9-89

Location

Loc Qty

Loc Code

ST263

394

117316

394

**

DAS
6
9-89

FEB 09 2017

DAS
27
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY			
Environment ☐	☐ No Re-verification	☐ Pressure/Forced	☐ Temperature/Cure	☐ Power Loss/Surge	☐ Positioned Wrong		
Design ☐	☐ Operator	☐ Bending	☐ Set-up	☐ Folio/Program	☐ Outside Dimensions		
Doc/Data ☐	☐ Offset/Setup	☐ Centre Not Concentric	☐ BOM/Route	☐ Grain	☐ Over/Under tolerance		
Equip/Tooling ☐	☐ Supplier	☐ Cracks	☐ Broken/Damage/Defect	☐ Weld	☐ Part Incorrect		
Handling/Pre ☐	☐ Training	☐ Crimp/Kink/Ripple/Wave	☐ Inspection Incomplete/Unqualified	☐ Wrong Stock Pulled	☐ Part Lost/Missing		
Material ☐	☐ Use for Testing	☐ Cuffs	☐ Contamination	☐ Out of Sequence	☐ Part Moved		
Internal Transport ☐	☐ Poor Information	☐ Crushing	☐ Countersink	☐ Off-set	☐ Drawing		
Tribal Knowledge ☐	☐ Rushing	☐ Heat Treat	☐ Cut Too Short	☐ Mislabeled	☐ Finish		
LOA ☐	☐ Product Improvement	☐ Wave/Twist in Tube	☐ Instructions Incomplete/Unclear	☐ Fit/Function	☐ Misread		
Substation ☐	☐ Process Improvement	☐ Marks/Chatter	☐ Drill Holes	☐ Misaligned/off center	☐ Turning Sequence		
Past Expiry Date ☐	☐ Manufacturing Process	OTHER : _____					
Misidentified ☐	☐ Past Due						

DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS D350-567 REV. E OR EARLIER
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D350-567 REV. 2 OR EARLIER

REF CANADIAN STC: SH92-18

FAA STC: SH989NE

FAA STC: SH990NE

1.0 Purpose

The purpose of this service instruction is to add the D350-567-141/-143/-145 Close-out Kits, which are intended for customers wishing to operate their aircraft with the interior floor window removed. The D350-567-141/-143/-145 Floor Window Close-out Kits provide a barrier around the interior and exterior vertical reference floor window to prevent objects from falling into the aircraft controls when the interior floor window is removed as shown in Figure 1. The -143 Kit is identical to the -141 Kit with the exception of the D4971-041 T/R Bellcrank Cover Assy which replaces the D4435-045 T/R Bellcrank Cover Assy on aircraft fitted with energy attenuating seats. The -145 Kit is similar to the -143 Kit but is only kit compatible with the AS350 B3e aircraft.

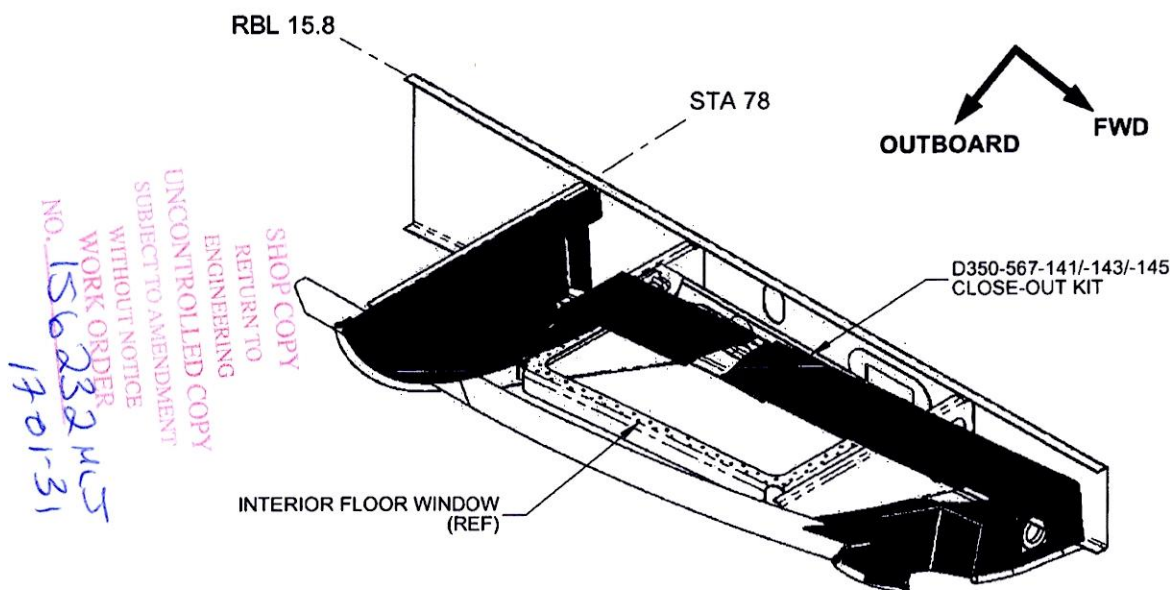


Figure 1. Floor Window Close-out Kit Installation

F	ADDED D4434-047 TO -141 KIT SEE PAR14-372.	AJS	15.01.12
E	ADD -143/-145 KITS	RF	14.03.20
E	CLARIFY FIGURES 3-12	VS	13.09.11
C	CORRECT TYPO NAS1149FN816P WAS NAS1149FN882P	RF	12.03.13
B	MS35206-229 WAS AN525-632R6; NAS1149FN616P (Qty 14) WAS (Qty 9); MS21042L06 (Qty 7) WAS (Qty 9); ADD AN525-832R7, NAS1149FN882P & MS21042L08	RF	12.02.22
A	NEW ISSUE	RF	12.01.09
REV.	DESCRIPTION	BY	DATE
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2.0 Parts List

Qty -141	Qty -143	Qty -145	Part Number	Description
X			D350-567-141	FLOOR WINDOW CLOSE-OUT KIT (REGULAR SEATS)
	X		D350-567-143	FLOOR WINDOW CLOSE-OUT KIT (ENERGY ATTENUATING SEATS)
		X	D350-567-145	FLOOR WINDOW CLOSE-OUT KIT (AS 350 B3e)
1	1	1	D3802-1-024	SEAL (24")
1	1		D4434-041	FWD BRACKET ASSEMBLY
1	1		D4434-047	COVER ASSEMBLY
1			D4435-045	T/R BELLCRANK COVER ASSEMBLY
2	2	2	D4435-9	BRACKET
1	1	1	D4436-041	AFT BRACKET ASSEMBLY
1	1	1	D4441-1-240	RUBBER SEAL (24")
		1	D4730-020-030	VELCRO STRIP
	1	1	D4971-041	T/R BELLCRANK COVER ASSEMBLY
		1	D5076-041	FWD BRACKET ASSEMBLY
7	5	5	AN3-3A	BOLT
2	2	2	AN525-10R6	SCREW
2	2	2	AN525-832R7	SCREW
		1	CB 200	3.5g ACRYLIC ADHESIVE
7	7	7	MS21042L06	NUT (OR MS21042-06)
2	2	2	MS21042L08	NUT (OR MS21042-08)
5	5	5	MS21042L3	NUT (OR MS21042-3)
2	2	2	MS21059L3	NUTPLATE
7	7	7	MS35206-229	SCREW
12	10	10	NAS1149F0332P	WASHER (AN960-10L)
14	14	14	NAS1149FN616P	WASHER (OR AN960-6L)
2	2	2	NAS1149FN816P	WASHER (OR AN960-8L)

3.0 Weight and Balance

The following is the net weight increase associated with the D350-567-141/-143/-145 Kits.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D350-567-141/-143/-145 Floor Window Close-out Kit	3.9 lb 1.77 kg	17.9 in 0.45 m	69.8 in-lb 0.80 m-kG	65.5 in 1.66 m	255.5 in-lb 2.94 m-kG

4.0 Installation Procedure

Notes:

- Figure 2 shows the general arrangement and installation of the D350-567-141/-143/-145 Close-out Kits. The procedure that follows outlines the step-by-step procedures for installing the kit with reference photos from the initial installation.
- In conjunction with this modification, it is acceptable to remove the interior floor windows as applicable. Note that the structural reinforcement around the window opening is still required.
 - D350-567-115 - OK to remove D3295-041
 - D350-567-031 - OK to remove D3212-1
 - D350-567-011 - OK to remove D2214
 - D350-567-021 - OK to remove D2951
- It is acceptable to drill/trim the D350-567-141/-143/-145 Close-out Kits as required to improve fit.

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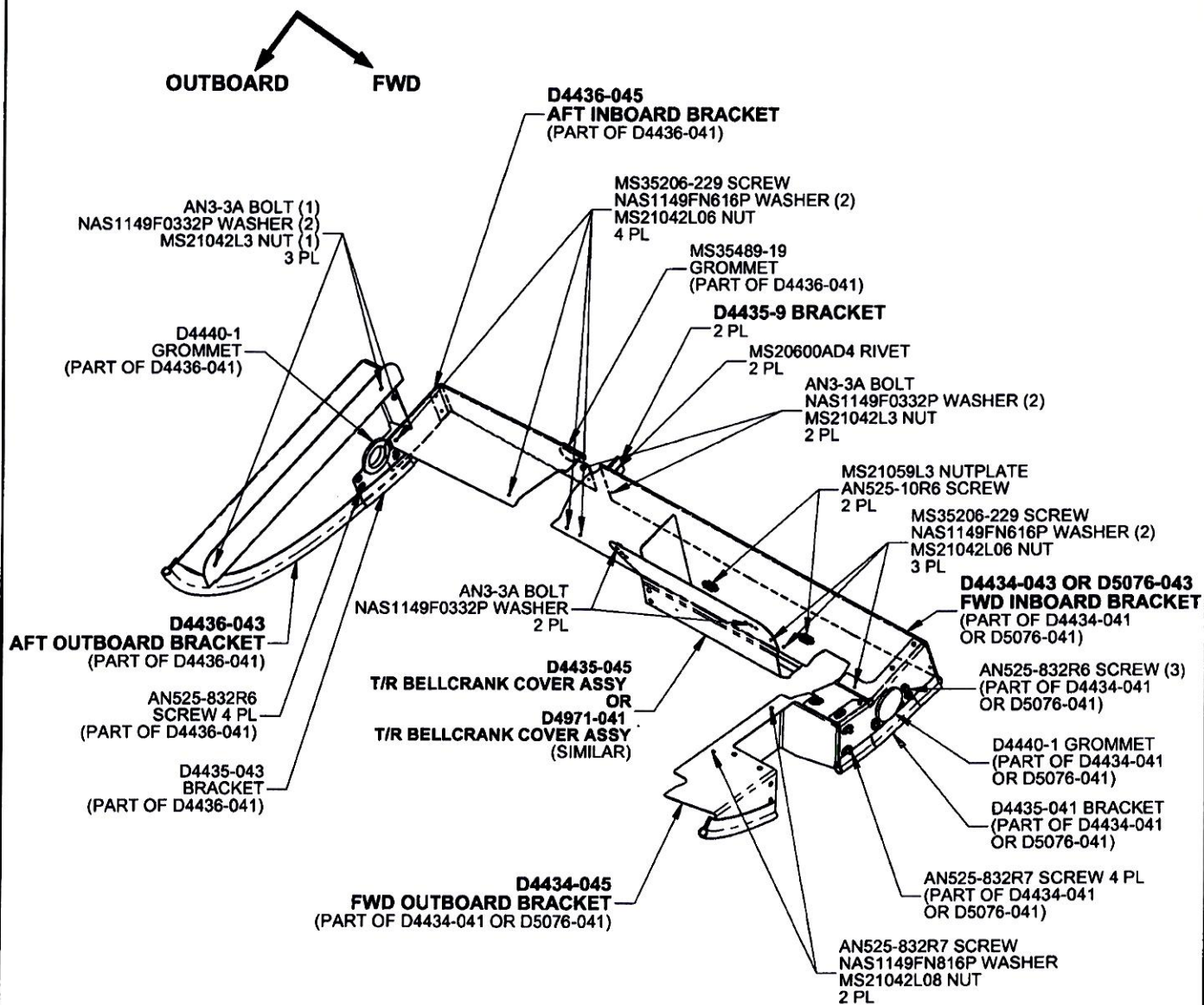


Figure 2. Floor Window Close-out Kit Installation

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4.1 Temporarily install D4436-043 Aft Outboard Bracket and D4436-045 Aft Inboard Bracket using clecos and/or cleco clamps. Before drilling holes:

- a) Position the D4436-043 Aft Outboard Bracket so the flange contacts the main beam as shown in Figure 3.
- b) Confirm that the D4436-043 Aft Outboard Bracket and beam angle are parallel as shown in Figure 4.

4.2 Temporarily install D4434-043/D5076-043 Fwd Inboard Bracket and D4434-045 Fwd Outboard Bracket using clecos and cleco clamps. Confirm there is no contact between D4436-045 Aft Inboard Bracket and D4434-043 /D5076-043 Fwd Inboard Bracket and main beam gusset as shown in Figure 5.

 4.3 For -141 installations, if aircraft is equipped with Collective Circuit Breaker Board box, trim D4434-043 Fwd Inboard Bracket as shown in Figure 14. Note: Confirm the D4434-047 Bracket fits over the Collective Circuit Breaker Board box. Adjust opening as required.

4.4 For -143 installations, if aircraft is equipped with Collective Circuit Breaker Board box, trim D4434-043 Fwd Inboard Bracket as shown in Figure 14. Install D4971-041 T/R Bellcrank cover as shown in Figure 13b. Note: Confirm the D4434-047 Bracket fits over the Collective Circuit Breaker Board box. Adjust opening as required.

4.5 For -145 installations, if aircraft is equipped with Collective Circuit Breaker Board box, use D5076-043 Fwd Inboard Bracket as shown in Figure 13c. Install D4971-041 T/R Bellcrank cover as shown in Figure 13c. Note: Confirm the D5076-3 Cover fits over the Collective Circuit Breaker Board box. Adjust opening as required.

4.6 Drill out rivets holding plastic wire bundle stand offs. Transfer drill $\varnothing 0.144$ holes to D4436-045 Aft Inboard Bracket per Figure 6. Transfer drill 2 x $\varnothing 0.144$ holes to D4434-043/D5076-043 Fwd Inboard Bracket per Figure 7. Transfer drill 2 x $\varnothing 0.144$ holes for D4434-043/D5076-043 Fwd Inboard Bracket per Figure 8. Before drilling confirm the D4434-043/D5076-043 and D4436-045 brackets are flush with outboard edge of main beam flange. Assemble D4436-045 Aft Inboard Bracket and D4434-043/D5076-043 Fwd Inboard Bracket and wire bundle stand offs to main beam flange using MS35206-229 screw, NAS1149FN616P washer and MS21042L06 nut.

4.7 Install D4436-043 Aft Outboard Bracket using AN3-3A bolt and NAS1149F0332P washer and MS21042L3 nut per Figure 9.

4.8 Remove 2 rivets holding RH heating plastic stand off as shown in Figure 10. Position the D4435-9 Brackets on the in/outboard sides of the cross beam and transfer drill 2 x $\varnothing 0.129$ holes from crossbeam to both D4435-9 Brackets. Install D4435-9 Brackets and RH heating plastic stand off using MS20600AD4 rivets or equivalent.

4.9 Drill a pilot hole from D4435-9 Bracket to the D4434-043/D5076-043 Fwd Inboard Bracket and D4436-045 Aft Inboard Bracket and open to $\varnothing 0.191$. Install AN3-3A bolt, NAS1149F0332P washer and MS21042L3 nut as shown in Figure 10. Be sure to maintain edge distance.

4.10 Transfer drill 2 x $\varnothing 0.144$ holes from crossbeam to D4434-045 Fwd Outboard Bracket if holes exist in crossbeam. If holes do not exist, drill 2 x $\varnothing 0.144$ holes at either end of D4434-045 bracket as shown in Figure 11. Install AN525-832R7 screws, NAS1149FN816P washer and MS21042L08 nuts.

4.11 FOR D350-567-141 KIT

a) Align D4435-045 T/R Bellcrank Cover Assy with existing holes in RH seat track lower frame and temporarily install using clecos and/or cleco clamps as shown in Figure 12a.

b) Transfer drill 2 x $\varnothing 0.098$ holes from D4435-045 T/R Bellcrank Cover Assy to D4434-043 Fwd Inboard Bracket. Open holes to $\varnothing 0.191$ and install MS21059L3 nut plate into D4434-043 Fwd Inboard Bracket as shown in Figure 12a and Figure 13a. Install D4435-045 T/R Bellcrank Cover Assy using AN525-10R6 screw, AN3-3A bolt and NAS1149F0332P washer per Figure 12a and Figure 13a.

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4.12 FOR D350-567-143/-145 KIT

- a) Remove the D4972-041 Side Plate Assy from the D4971-041 T/R Bellcrank Cover Assy and retain fasteners.
 - b) Align D4971-1 T/R Bellcrank Cover with existing holes in RH seat track lower frame and temporarily install using clecos and/or cleco clamps as shown in Figure 12b.
 - c) Bond D4730-020-030 Velcro to back of D4971-1 T/R Bellcrank Cover as shown in Figure 12b using CB 200 adhesive.
 - d) Transfer drill 2 x $\varnothing 0.098$ holes from D4971-1 Cover Plate to D4434-043/D5076-043 Fwd Inboard Bracket. Open holes to $\varnothing 0.191$ and install MS21059L3 nut plate into D4434-043/D5076-043 Fwd Inboard Bracket as shown in Figure 13b/13c. Install D4971-1 Cover Plate using AN525-10R6 screws and D4730-020-030 Velcro per Figure 12b and Figure 13b/13c.
 - e) Re-install the D4972-041 Side Plate Assy using the retained fasteners.
- 4.13 The D4440-1 grommets are provided to facilitate the routing of wiring harness thru the close-out kit as required. The wiring harness should be secure to the aircraft structure per AC 43.13.13-1B or AS350 Chapter 20.02.01.
 - 4.14 Use the D3802-1-024 Seal to fill gaps between the brackets and the cowlings that are larger than 0.25 inch.
 - 4.15 Perform travel/interference check of the flight controls to ensure there is no interference and all controls still have full travel.
 - 4.16 Ensure there is a gap between the components of the D350-567-141/-143/-145 Close-out Kit and the aircraft structure so that the Close-out Kit does not chafe, interfere, or cause damage to the surrounding aircraft structure. In areas where the D350-567-141 /-143/-145 Close-out Kit may contact the aircraft structure, protect from abrasion using chafing tape or a layer Proseal 890 or MIL-S-8802 class B2 sealant or equivalent as required.

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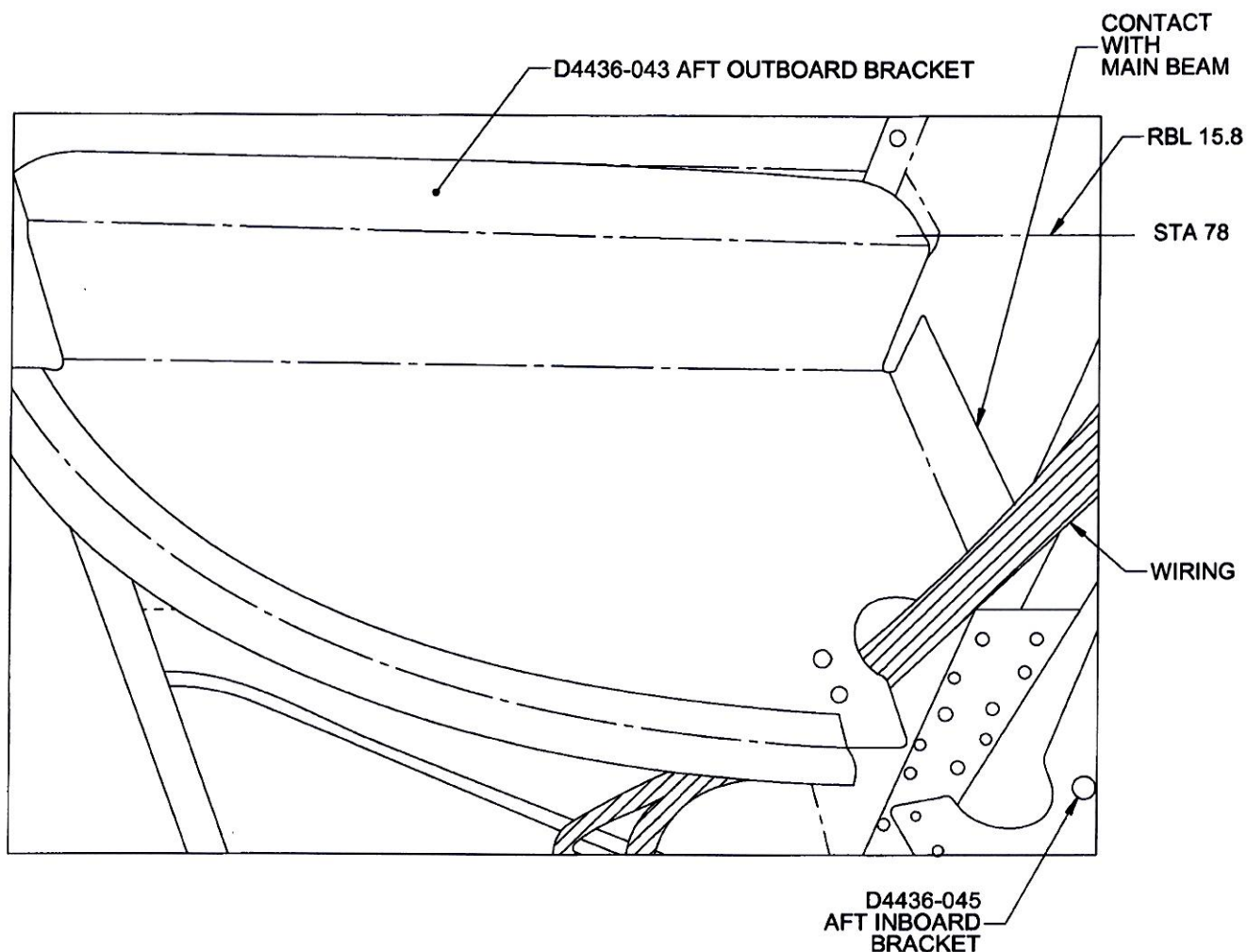


Figure 3. D4436-043 Aft Outboard Bracket Installation

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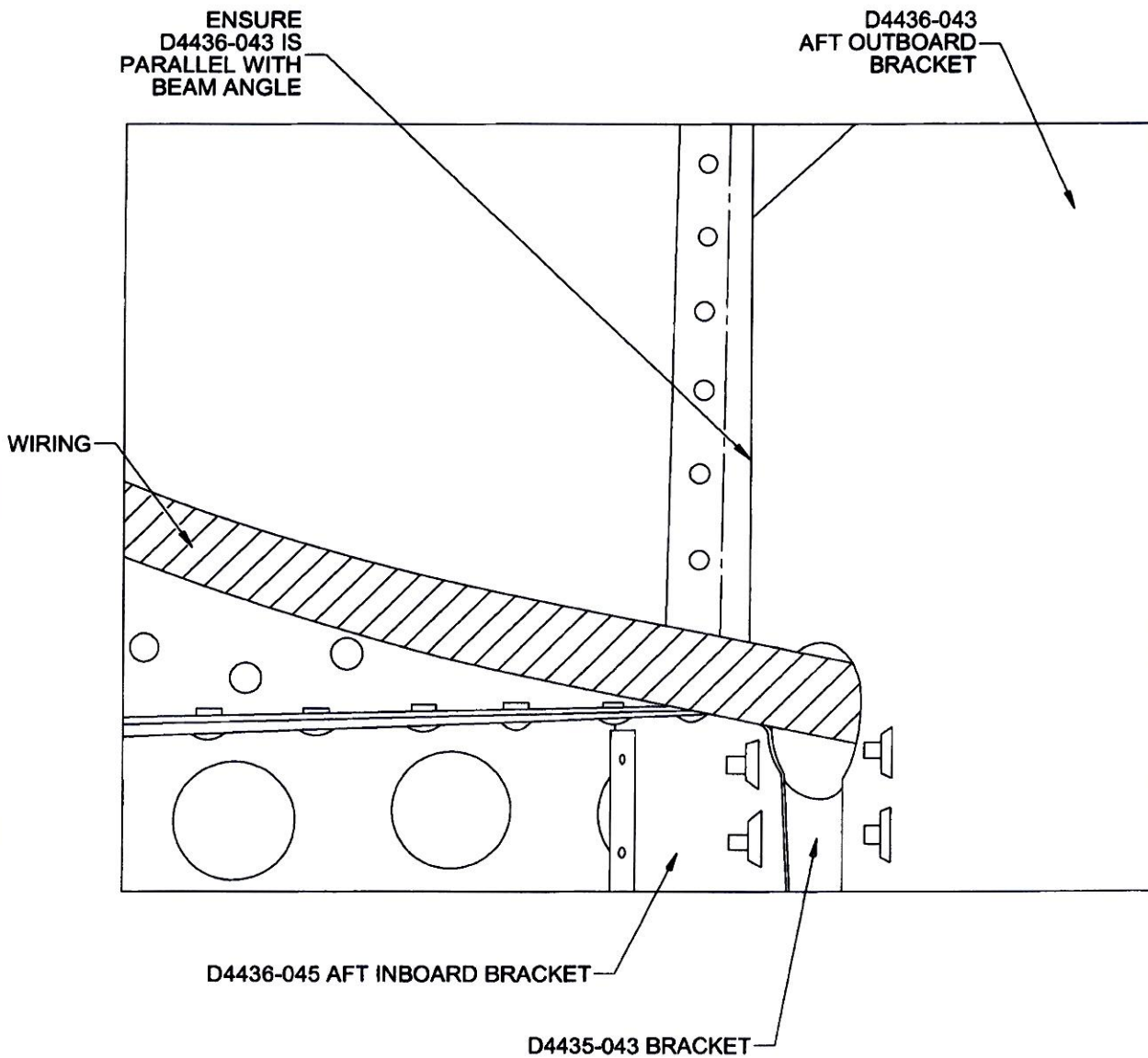


Figure 4. D4436-043 & D4435-043 Brackets Installation

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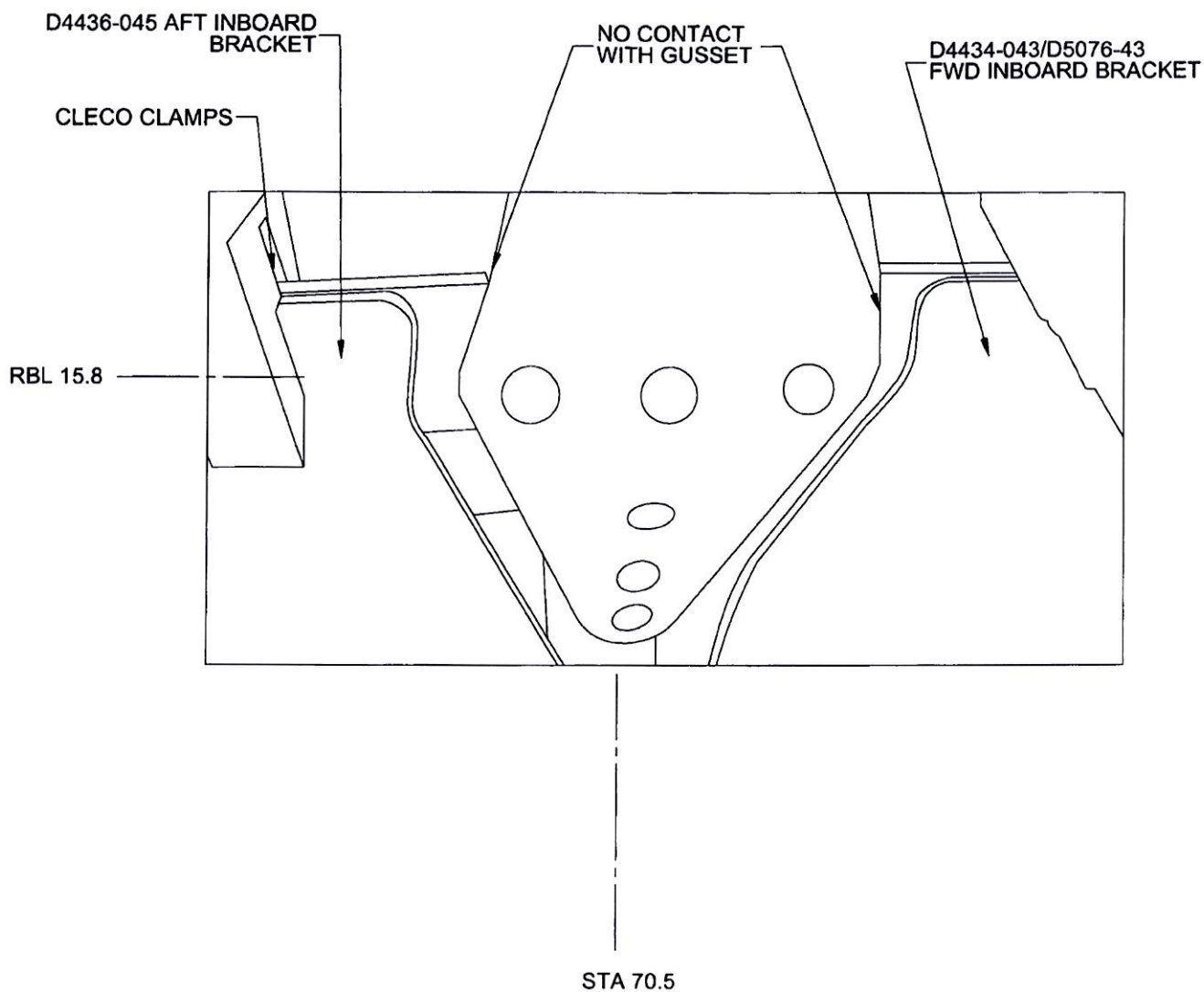


Figure 5. D4436-045 & D4434-043/D5076-043 Brackets Installation

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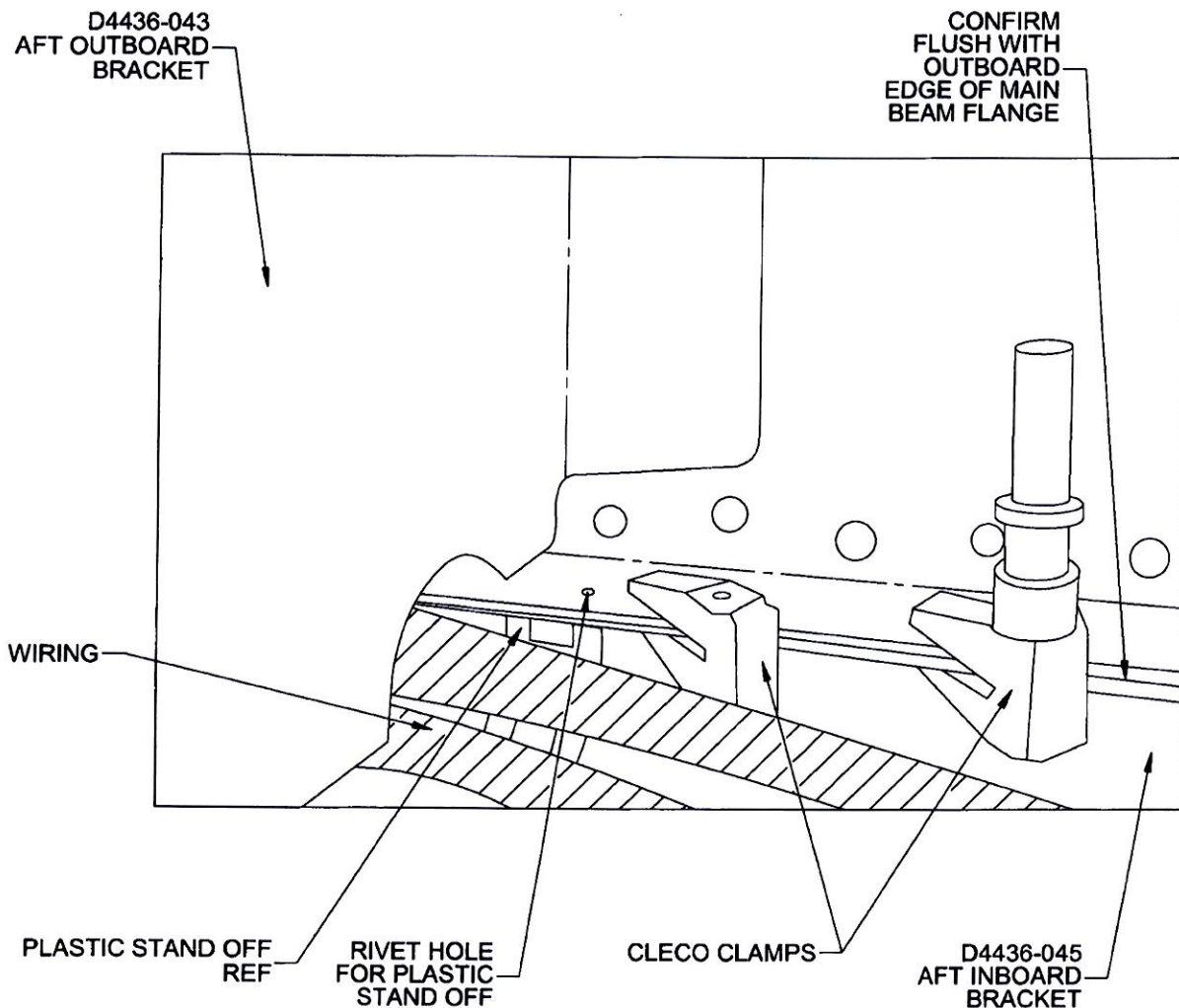


Figure 6. D4436-043 & D4436-045 Brackets Installation

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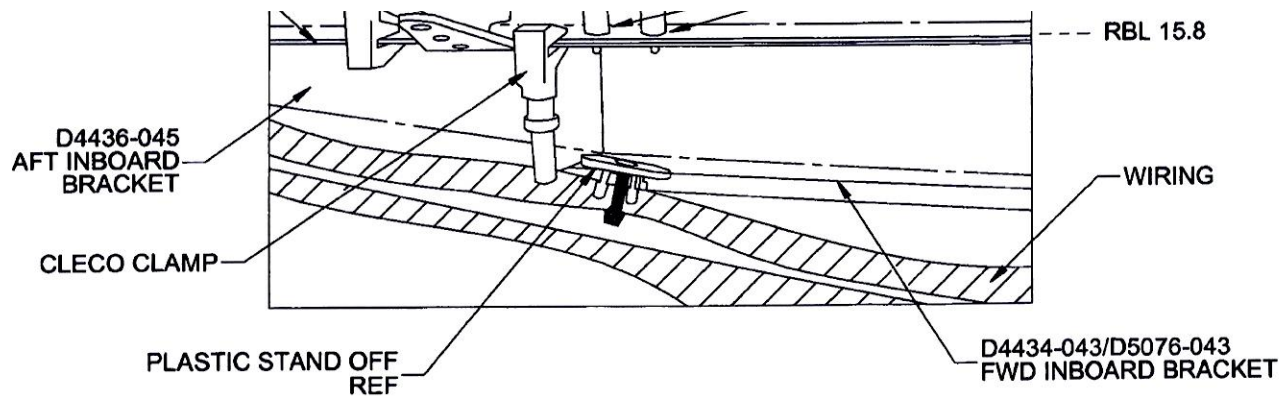


Figure 7. D4434-043/D5076-043 & D4436-045 Brackets Installation

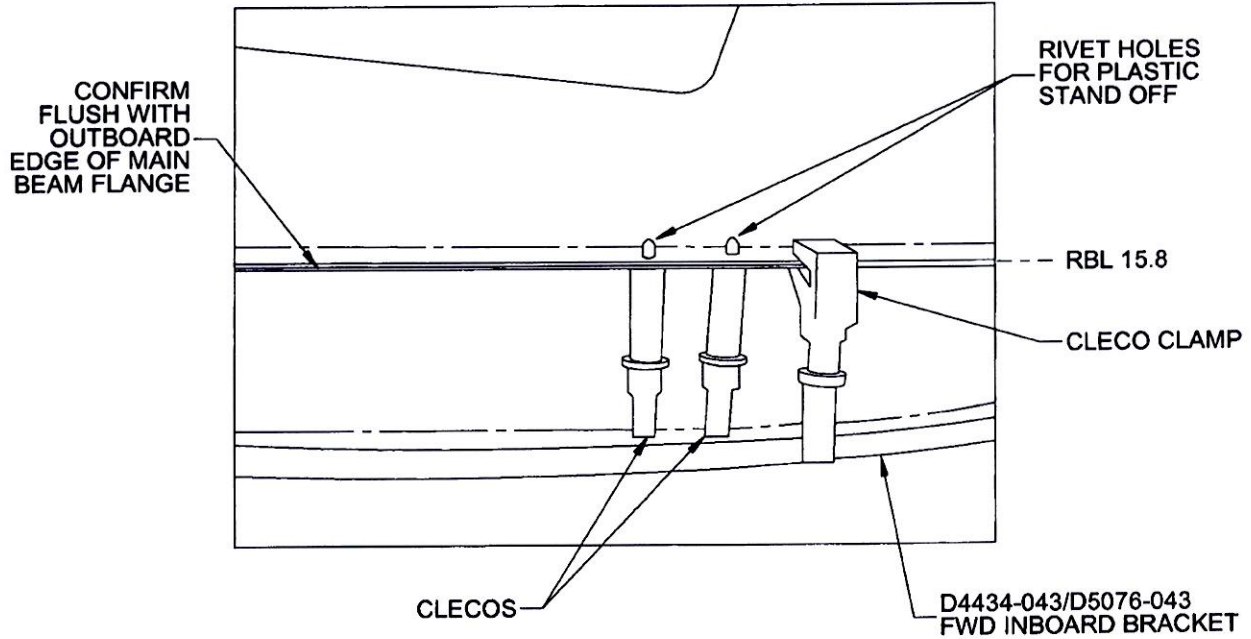


Figure 8. D4434-043/D5076-043 Fwd Inboard Bracket Installation

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INSTALL
D4436-043
AFT OUTBOARD BRACKET
USING
AN3-3A BOLT (1)
NAS1149F0332P WASHER (2)
MS21042L3 NUT (1)
3 PL

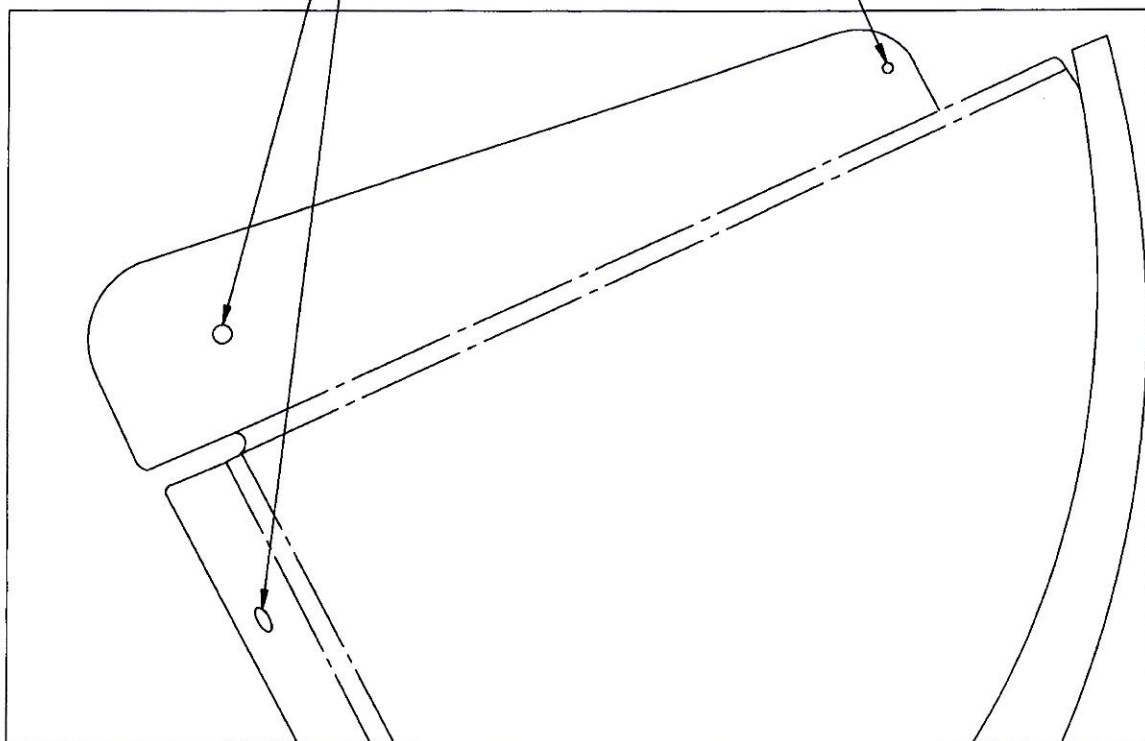


Figure 9. D4436-043 Aft Outboard Bracket Installation

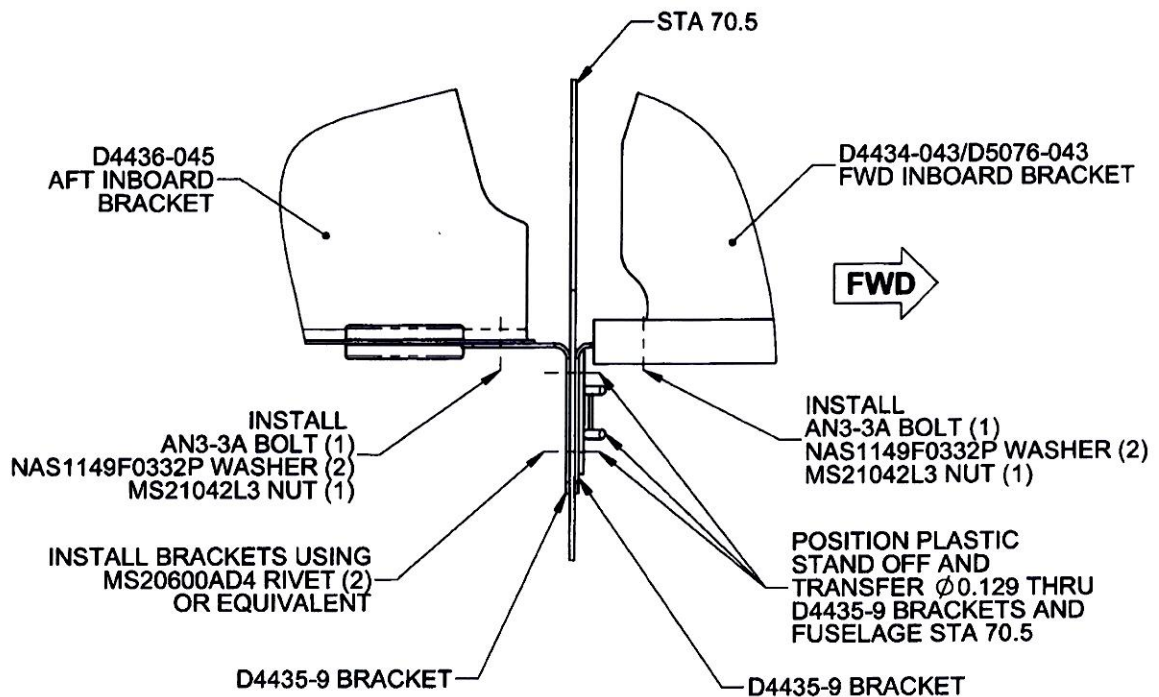
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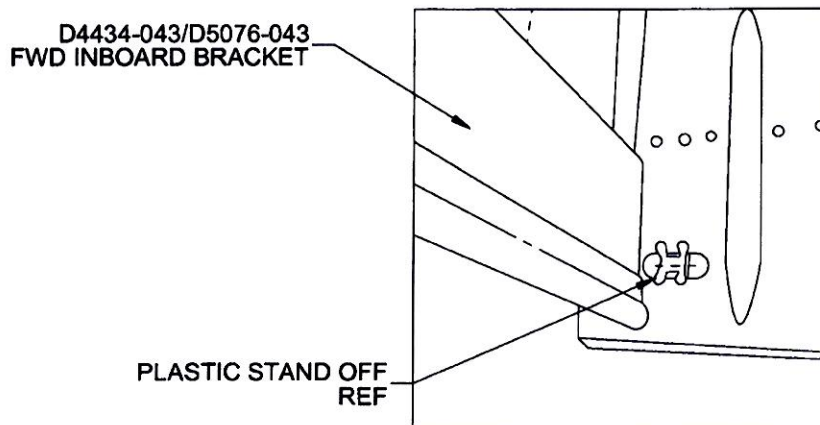


Figure 10. D4434-043/D5076-043 and D4435-9 Brackets Installation

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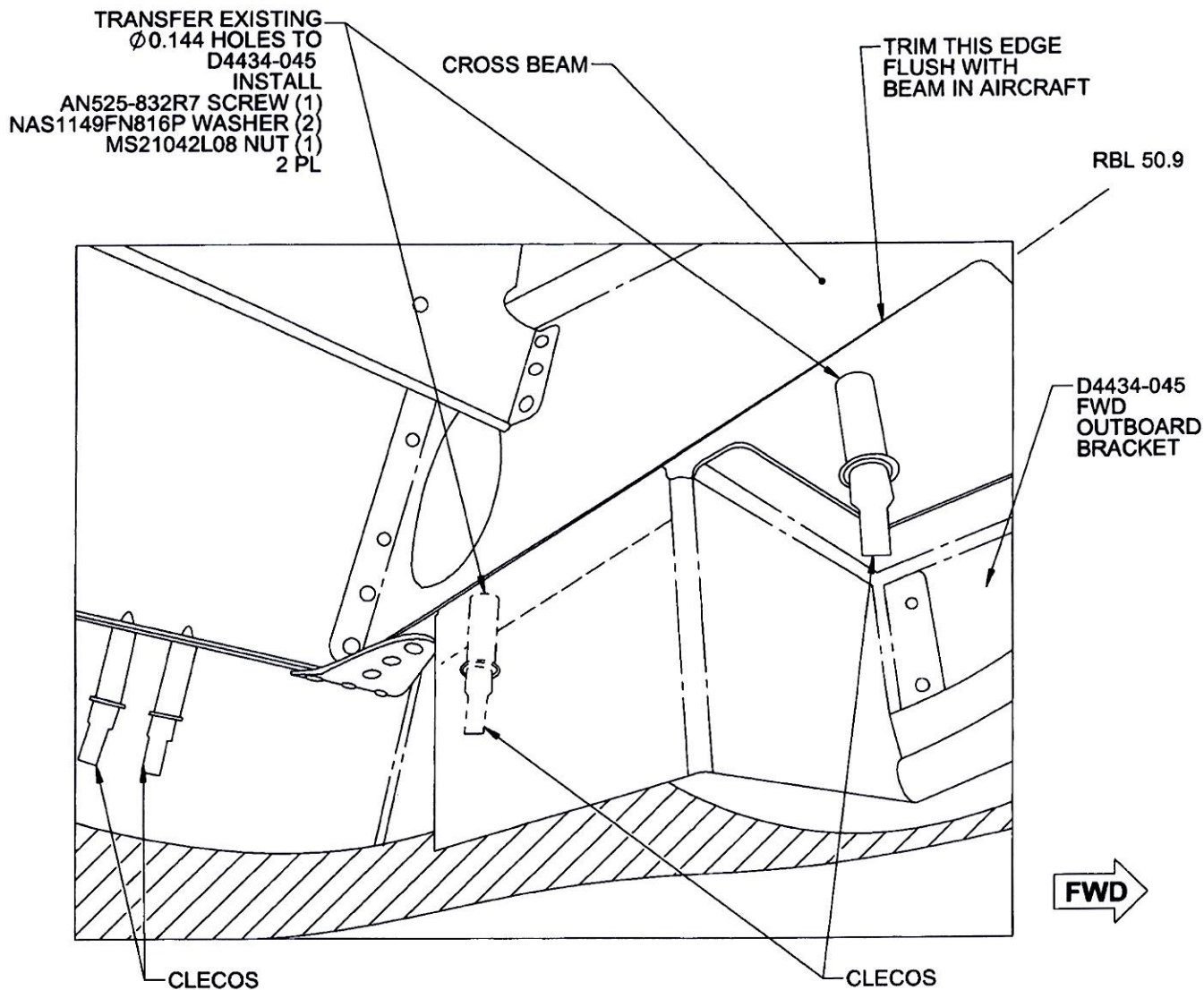


Figure 11. D4434-045 Bracket Installation

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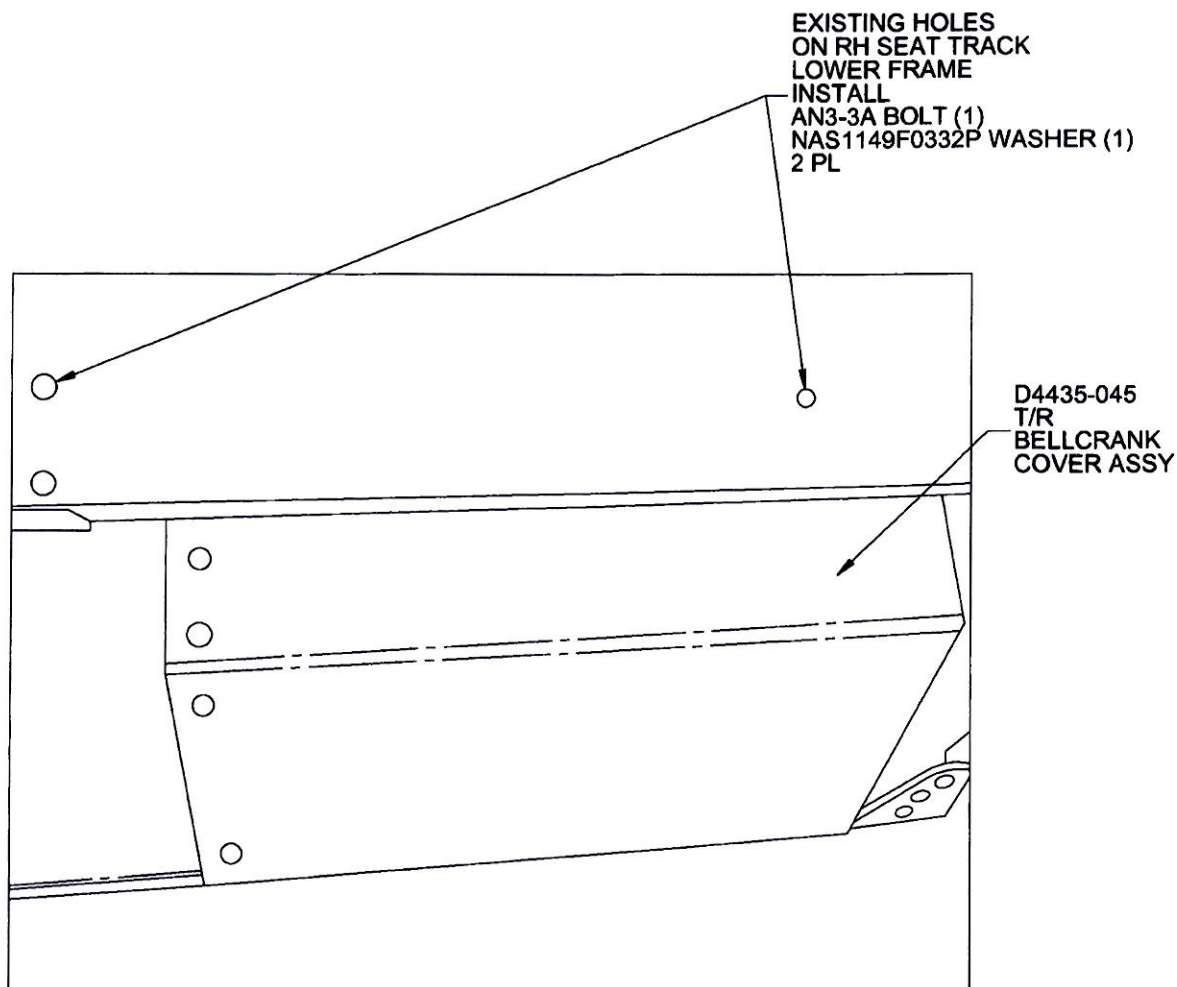


Figure 12a. D4435-045 T/R Bellcrank Cover Installation (-141)

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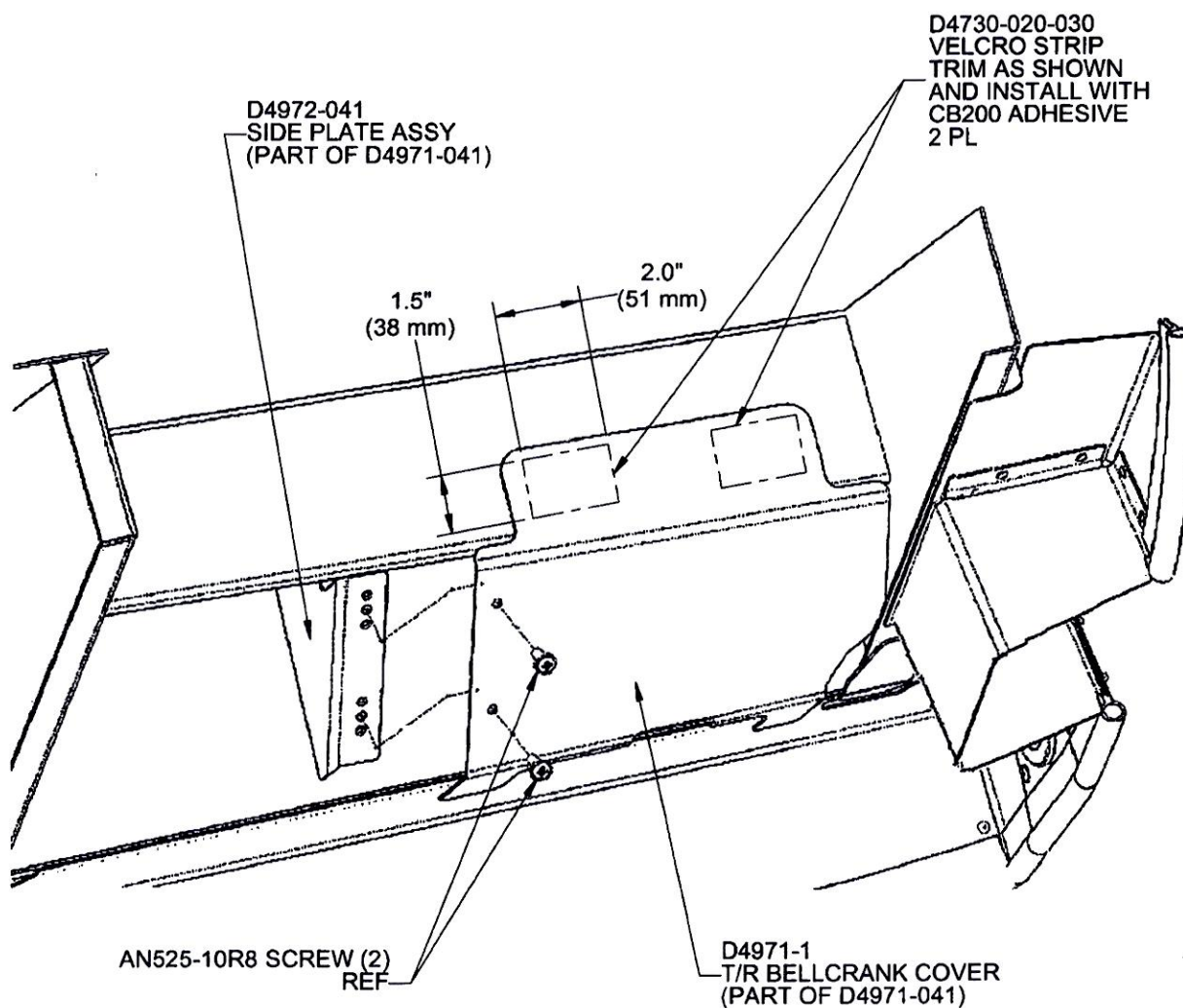


Figure 12b. D4971-041 T/R Bellcrank Cover Assy Installation (-143/-145)

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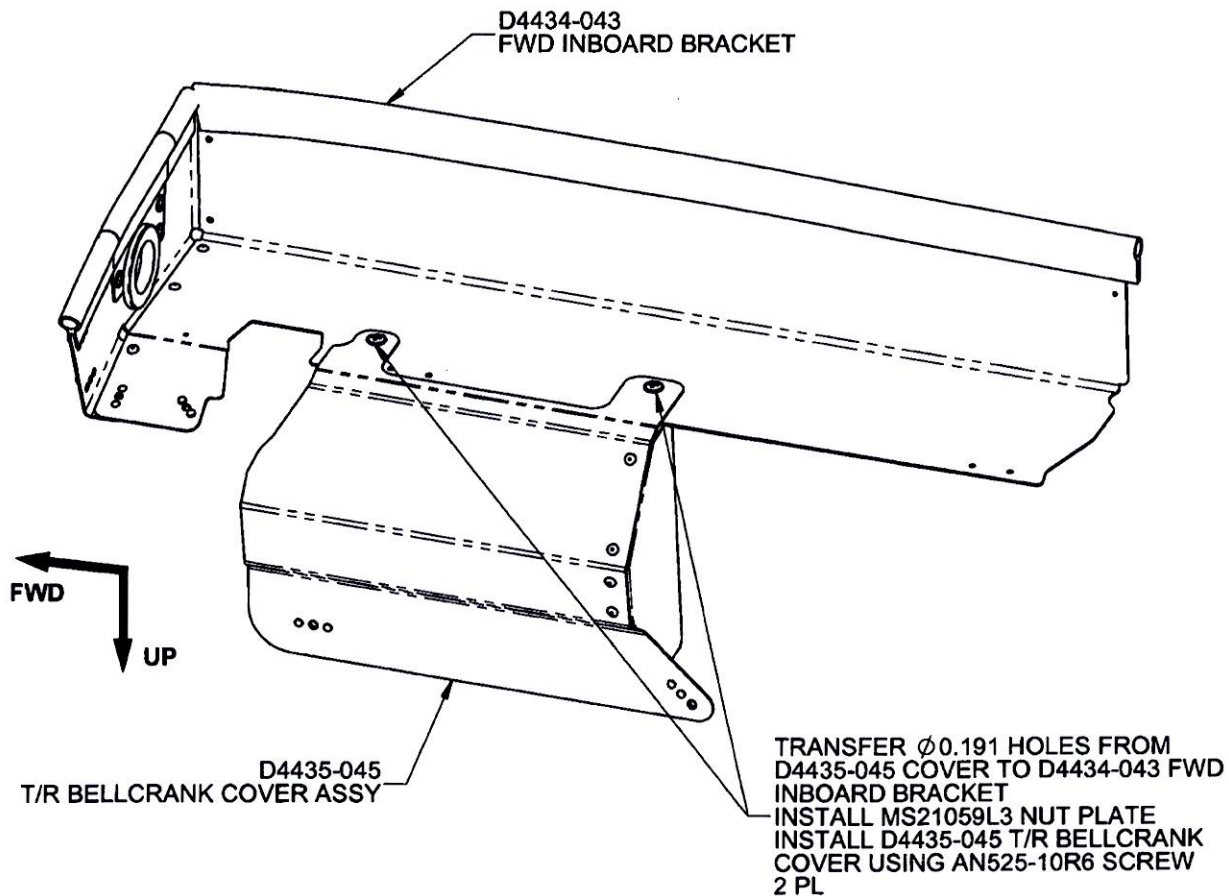


Figure 13a. D4435-045 Cover Installation (-141 ONLY)

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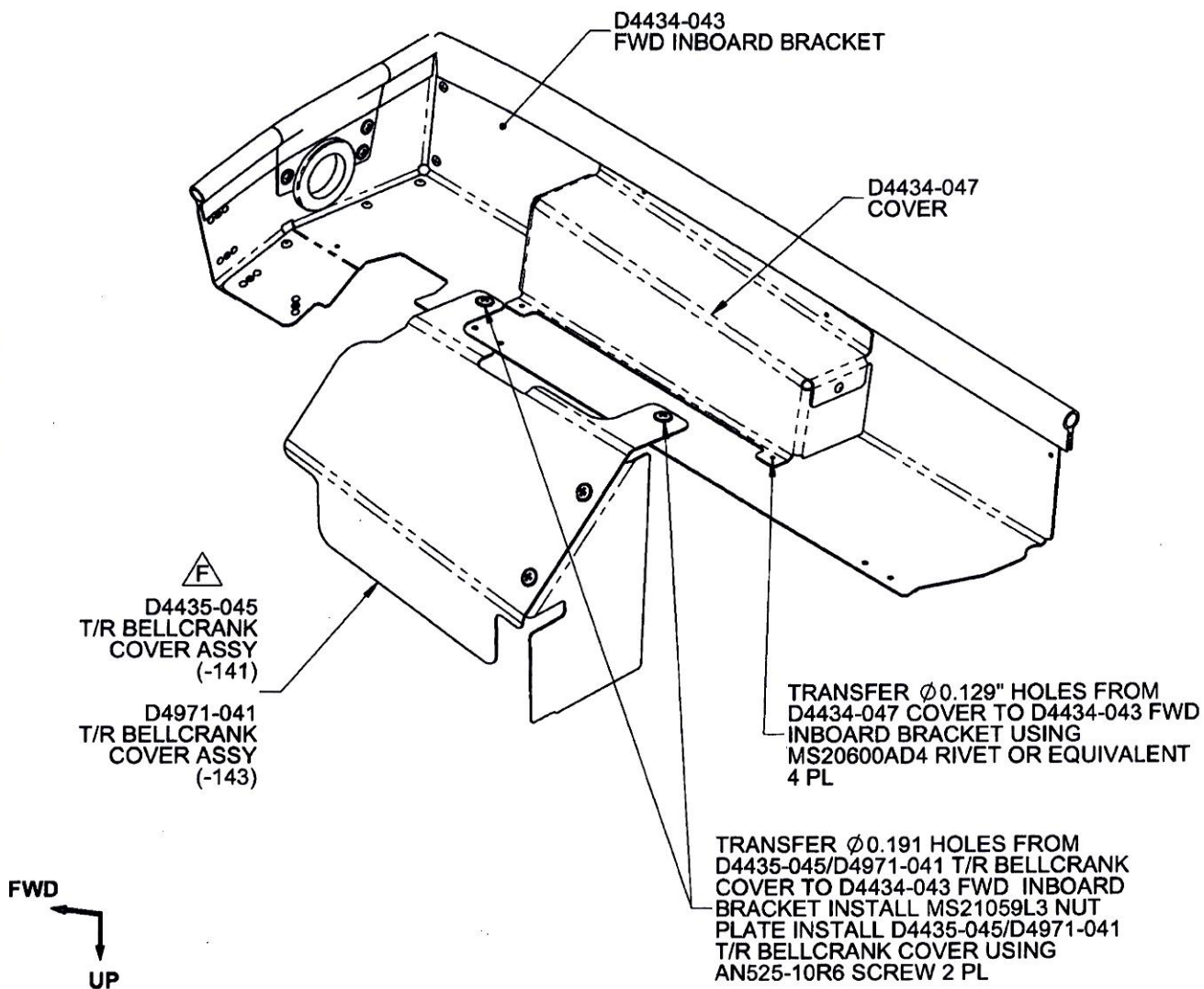


Figure 13b. D4971-041/D4435-045 & D4434-047 Cover Installation
(D4434-047 is Optional on -141)



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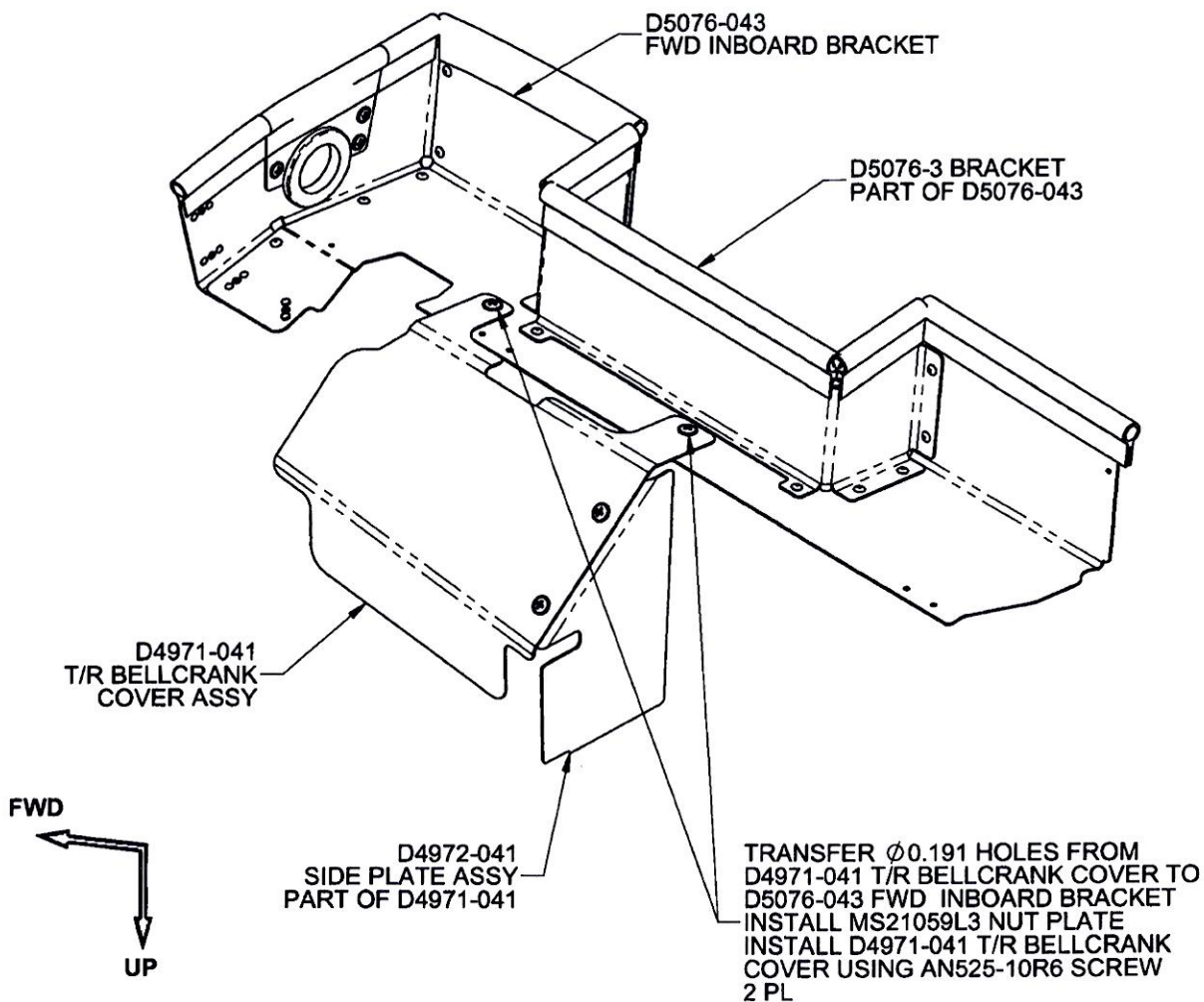


Figure 13c. D4971-041 INSTALLATION INTO D5076-043 (-145 ONLY)

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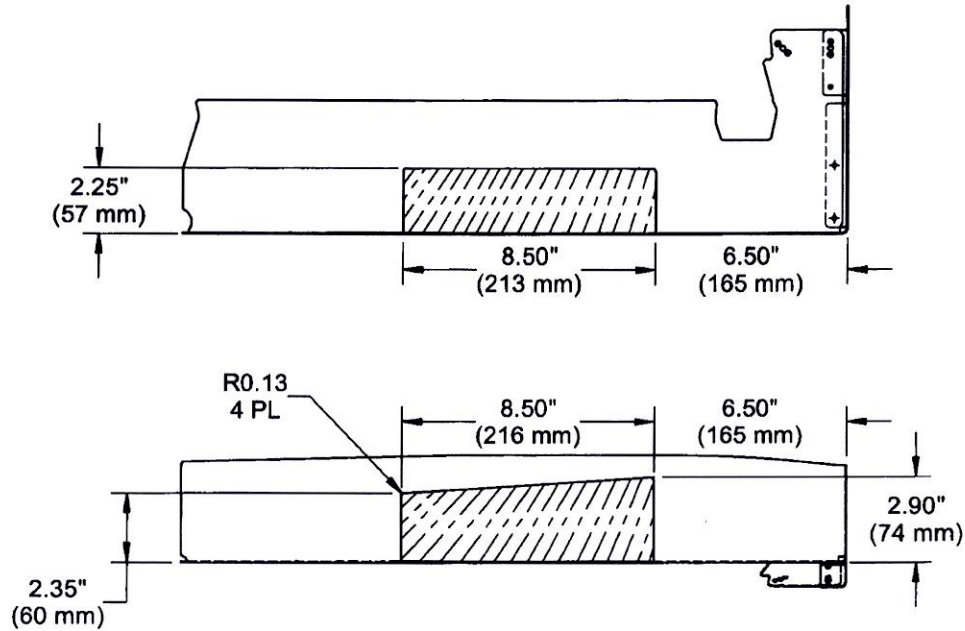
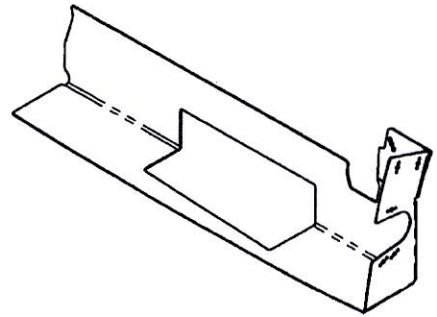


Figure 14. D4434-043 Fwd Inboard Bracket Cutout

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REFERENCE ONLY

2.0 Parts List

Qty -141	Qty -143	Qty -145	Part Number	Description
X			D350-567-141	FLOOR WINDOW CLOSE-OUT KIT (REGULAR SEATS)
	X		D350-567-143	FLOOR WINDOW CLOSE-OUT KIT (ENERGY ATTENUATING SEATS)
		X	D350-567-145	FLOOR WINDOW CLOSE-OUT KIT (AS 350 B3e)
1	1	1	D3802-1-024	SEAL (24")
1	1		D4434-041	FWD BRACKET ASSEMBLY
1	1		D4434-047	COVER ASSEMBLY
1			D4435-045	T/R BELLCRANK COVER ASSEMBLY
2	2	2	D4435-9	BRACKET
1	1	1	D4436-041	AFT BRACKET ASSEMBLY
1	1	1	D4441-1-240	RUBBER SEAL (24")
		1	D4730-020-030	VELCRO STRIP
	1	1	D4971-041	T/R BELLCRANK COVER ASSEMBLY
		1	D5076-041	FWD BRACKET ASSEMBLY
7	5	5	AN3-3A	BOLT
2	2	2	AN525-10R6	SCREW
2	2	2	AN525-832R7	SCREW
		1	CB 200	3.5g ACRYLIC ADHESIVE
7	7	7	MS21042L06	NUT (OR MS21042-06)
2	2	2	MS21042L08	NUT (OR MS21042-08)
5	5	5	MS21042L3	NUT (OR MS21042-3)
2	2	2	MS21059L3	NUTPLATE
7	7	7	MS35206-229	SCREW
12	10	10	NAS1149F0332P	WASHER (AN960-10L)
14	14	14	NAS1149FN616P	WASHER (OR AN960-6L)
2	2	2	NAS1149FN816P	WASHER (OR AN960-8L)

F

3.0 Weight and Balance

The following is the net weight increase associated with the D350-567-141/-143/-145 Kits.

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D350-567-141/-143/-145	3.9 lb	17.9 in	69.8 in-lb	65.5 in	255.5 in-lb
Floor Window Close-out Kit	1.77 kg	0.45 m	0.80 m-kG	1.66 m	2.94 m-kG

4.0 Installation Procedure

Notes:

- Figure 2 shows the general arrangement and installation of the D350-567-141/-143/-145 Close-out Kits. The procedure that follows outlines the step-by-step procedures for installing the kit with reference photos from the initial installation.
- In conjunction with this modification, it is acceptable to remove the interior floor windows as applicable. Note that the structural reinforcement around the window opening is still required.
 - D350-567-115 - OK to remove D3295-041
 - D350-567-031 - OK to remove D3212-1
 - D350-567-011 - OK to remove D2214
 - D350-567-021 - OK to remove D2951
- It is acceptable to drill/trim the D350-567-141/-143/-145 Close-out Kits as required to improve fit.

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